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**Melsert et al.**

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(54) **THERMOELECTRIC POWER GENERATION  
AND MINERAL EXTRACTION FROM  
BRINES**

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(58) **Field of Classification Search**

None

See application file for complete search history.

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(57) **ABSTRACT**

Disclosed herein is a method and apparatus that uses a brine  
from a well that is used to both generate electricity and  
recover valuable minerals present in the brine. The method  
and apparatus uses a hydrophobic membrane to separate  
water vapor from the brine to concentrate the brine that is  
then used to recover the minerals.

**13 Claims, 7 Drawing Sheets**

